

WHAT IS CLAIMED IS:

1. A method of storing a material into which a gas saturates, before the material is foamed in a metal foam, while maintaining a gas saturated state,  
5 wherein the material into which the gas saturates is stored at a predetermined ambient pressure and predetermined ambient temperature, thereby preventing escape of the gas from the material into which the gas saturates.
- 10 2. The method according to claim 1, wherein the predetermined ambient pressure is 0.5 to 4 MPa.
3. The method according to claim 1, wherein the predetermined ambient temperature is -5°C to 20°C.
- 15 4. A method of storing a material into which a gas saturates, wherein a gas is allowed to saturate into a resin material at a saturation pressure P (MPa) of not less than 4 (MPa) and a temperature T (°C), and, letting m (-0.05 < m < 0.2) be a coefficient determined by a material type and a gas saturation time, the  
20 material is stored in an ambient defined by a pressure p (MPa) represented by

$$p = P(0.02P + m)$$

and a temperature t represented by

$$0.1875T - 10 < t < 0.5T - 10$$

- 25 where  $20^\circ\text{C} \leq T \leq 60^\circ\text{C}$

and represented by

$$0.1875T - 10 < t \leq 20^\circ\text{C}$$

where  $T > 60^{\circ}\text{C}$ .

5. The method according to claim 4, wherein the material is a resin material.
6. The method according to claim 4, wherein the 5 material is a rubber material.
7. The method according to claim 1, wherein the material is a pelletized solid.
8. The method according to claim 1, wherein the gas is an inert gas.
- 10 9. The method according to claim 8, wherein the inert gas is carbon dioxide.
10. The method according to claim 1, wherein a gas saturation amount after storage is 0.1 to 0.4 wt%.
11. A method of storing a material into which a gas 15 saturates, wherein 0.1 to 1.5 wt% of supercritical carbon dioxide are allowed to saturate into a pelletized solid resin material, and the solid resin material is stored at a temperature lower than a gas temperature when the carbon dioxide saturates, and at a 20 high gas density.
12. A method of storing a material into which a gas saturates, wherein 0.1 to 1.5 wt% of supercritical carbon dioxide at a gas density of 0.08 to 0.2 g/cm<sup>2</sup> are allowed to saturate into a pelletized solid resin 25 material, and the solid resin material is stored at a gas density of 0.7 to 1.0 g/cm<sup>2</sup>.